

CLAIMS

What is claimed is:

1. An outer air seal assembly for reducing leakage proximate a fluid guide component having a predetermined direction of rotation, comprising:

5 a first boundary member radially spaced apart from a central axis by a predetermined first distance, said first boundary member characterized by a first interface edge and an opposite second interface edge;

a second boundary member radially spaced apart from said central axis by a predetermined second distance, said second boundary member being characterized by a first
10 interface edge and an opposite second interface edge, said second boundary member first edge being disposed proximate said first boundary member second edge and spaced apart therefrom by an interface gap disposed therebetween;

wherein said interface gap includes a radially-skewed portion having a radially-inward region and a radially-outward region, said radially-outward region being rotationally-upstream of
15 said radially-inward region.

2. The outer air seal assembly of Claim 1, wherein said interface gap separates said first and second boundary members circumferentially.

3. The outer air seal assembly of Claim 2, further including a blocking panel disposed within said interface gap.
4. The outer air seal assembly of Claim 2, further including a radially-aligned region disposed radially-outward of said radially-skewed portion.
- 5 5. The outer air seal assembly of Claim 4, further including a blocking panel disposed within said interface gap.
6. The outer air seal assembly of Claim 5, wherein said blocking panel is disposed within said radially-aligned region.
7. The outer air seal assembly of Claim 2, further including a partition member extending
10 into said interface gap, wherein a serpentine-shaped pathway is formed within said interference gap.
8. The outer air seal assembly of Claim 7, wherein said partition member is disposed on said first boundary member.
9. The outer air seal assembly of Claim 7, wherein said partition member is disposed on
15 said second boundary member.
10. The outer air seal assembly of Claim 7, wherein said partition member is oriented in a substantially-radially-aligned manner with respect to said central axis.
11. The outer air seal assembly of Claim 7, wherein said partition member is oriented in a substantially-circumferentially-aligned manner with respect to said central axis.
- 20 12. The outer air seal assembly of Claim 2, wherein said first boundary member further includes a radially-inward surface and a conduit adapted to fluidly connect a source of cooling

fluid to said interface gap, whereby said interface gap is adapted to deliver cooling fluid to a location proximate said radially-inward surface.

13. The outer air seal assembly of Claim 12, wherein said conduit is fluidly connected to said radially-skewed portion.

5 14. The outer air seal assembly of Claim 2, wherein said second boundary member further includes a radially-inward surface and a conduit adapted to fluidly connect a source of cooling fluid to said interface gap, whereby said interface gap is adapted to deliver cooling fluid to a location proximate said radially-inward surface.

10 15. The outer air seal assembly of Claim 14, wherein said conduit is fluidly connected to said radially-skewed portion.

16. An outer air seal assembly for reducing leakage proximate a fluid guide component having a predetermined direction of rotation, comprising:

15 a first boundary member radially spaced apart from a central axis by a predetermined first distance, said first boundary member characterized by a first interface edge, an opposite second interface edge, and a radially-inward surface;

a second boundary member radially spaced apart from said central axis by a predetermined second distance, said second boundary member being characterized by a first interface edge, an opposite second interface edge, and a radially-inward surface;

20 said second boundary member first edge being disposed proximate said first boundary member second edge and spaced apart therefrom by an interface gap disposed therebetween;

wherein said interface gap includes a radially-skewed portion having a radially-inward region and a radially-outward region, said radially-outward region being rotationally-upstream of said radially-inward region;

a blocking panel disposed within said interface gap;

5 a partition member partition member extending into said interface gap, wherein a serpentine-shaped pathway is formed within said interference gap; and

a conduit adapted to fluidly connect a source of cooling fluid to said interface gap, wherein said interface gap is adapted to deliver cooling fluid to a location proximate said radially-inward surfaces.

10 17. The outer air seal assembly of Claim 1, wherein said interface gap separates said first and second boundary members axially.

18. The outer air seal assembly of Claim 17, further including a radially-aligned region disposed radially-outward of said radially-skewed portion.

15 19. The outer air seal assembly of Claim 17, further including a partition member extending into said interface gap, wherein a serpentine-shaped pathway is formed within said interference gap.

20 20. The outer air seal assembly of Claim 17, wherein said first boundary member further includes a radially-inward surface and a conduit adapted to fluidly connect a source of cooling fluid to said interface gap, wherein said interface gap is adapted to deliver cooling fluid to a location proximate said radially-inward surface.